

Notice of Allowability

Application No.

10/038,941

Applicant(s)

MASTRONARDE ET AL.

Examiner

Art Unit

Tuan V. Thai

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Examiner interview conducted on 11/10/2005.
2. ☒ The allowed claim(s) is/are 1-2, 4, 6,9-11, 13, 15 and 18 renumbered as 1-10 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____


TUAN V. THAI
PRIMARY EXAMINER

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Attorney's Docket No.: 42390P12919

IN THE UNITED STATES PATENT AND
TRADEMARK OFFICE

In re application of: Mastronarde et al. Group: 2186

Serial No.: 10/038,941 Examiner: Tuan Thai

For: **MEMORY ARBITER WITH GRACE AND CEILING PERIODS AND
INTELLIGENT PAGE GATHERING LOGIC.**

1. This action is responsive to amendment filed September 06, 2005 and Examiner interview conducted on 11/10/2005. Claims 1-2, 4, 6, 9-11, 13, 15 and 18 are now allowed. Claims 3, 5, 7-8, 12, 14, 16-17 have been canceled. Claims 19-36 are now canceled.

EXAMINER'S AMENDMENT

2. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

3. Authorization for this Examiner's Amendment was given in a telephone interview with Mr. Robert D. Hinchliffe; Reg. No. 55,268 on November 10, 2005.

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4. The application has been amended as follows:

a. In the claims:

a1. ***Cancel claims 19-36.***

REASONS FOR ALLOWANCE

5. The following is an Examiner's Statement of Reasons for Allowance:

The prior arts of record do not teach nor suggest, *either alone or in combination*, **all** the limitations of the claimed invention (claims 1, 6, 10 and 15), particularly the closest prior art references of Lewchuck ('461) and Iizuka ('521) cited by the Examiner does not particularly disclose the current invention which is directed to a memory arbiter having a memory area, and a memory controller coupled to the memory area wherein the memory controller configured to receive memory requests and corresponding priorities from a microprocessor, the memory controller is continue to service current lower priority requests for a predefined first period *if an incoming higher priority request is directed to a same page of memory as the current lower priority requests and to subsequently service the higher priority request for a predefined period*; the prior art of Iizuka ('521) disclose the upper limit numbers of continuous fetch times of the

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queues are used to count the number of continuous fetch times of the priority data with the current number of continuous fetch times of the priority data with the current number of continuous fetch times; however neither Lewchuck nor Iizuka discloses a first counter and second counter of the memory controller for monitoring the first and second predefined time period as being claimed. In light of the foregoing; claims 1, 6, 10 and 15 of the present invention are found to be patentable over the prior arts.

Claims 2, 4, 9, 11, 13 and 16 further limit the allowable independent claims 1, 6, 10 and 15. These claims are therefore allowable for the same reason as set forth above.

Any comments considered necessary by Applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can normally be reached on from 6:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be

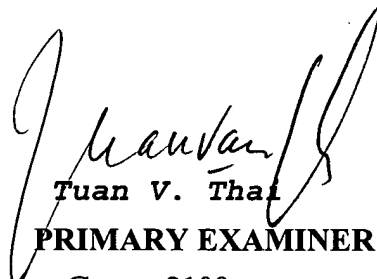
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reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/November 14, 2005


Tuan V. Thai
PRIMARY EXAMINER
Group 2100